

Reg. No.

--	--	--	--	--	--	--	--	--	--



BSCBOC 354

**Credit Based Sixth Semester B.Sc. Examination, April/May 2017
(Semester Scheme)
(2016 – 17 Batch Onwards)
BOTANY**

Plant Physiology II and Ecology – II

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Answer Part A and Part B.
2) Answer **four full** questions from Part B choosing **one full** question from **each** Unit.
3) **All** questions in Part B carry **equal** marks.
4) Draw diagrams **wherever** necessary.

PART – A

1. Answer **ANY TEN** of the following : (2×10=20)
- Write a note on photolysis of water.
 - What are phycobilins ? Give two examples.
 - Write a note on action and absorption spectrum.
 - Define *RQ*. Comment on the *RQ* of carbohydrates.
 - What is glycolysis ? Give the net yield of ATP in glycolysis.
 - What is Pasteur's effect ?
 - What is photoperiodic induction ?
 - Mention the type of Leaf Movements seen in *MIMOSA PUDICA* and *DESMODIUM GYRANS*.
 - Explain any two roles played by abscissic acid.
 - What are nest epiphytes ? Give one example.
 - Write a note on alpha diversity.
 - What is shola vegetation ? Where it is commonly seen ?

PART – B

Unit – I

2. a) Explain the ultra structure of a chloroplast. 4
b) State the law of limiting factors. Explain the effect of light on photosynthesis. 4
c) Describe Calvin cycle. 7

OR

P.T.O.



3. a) Write a note on path of translocation. 3
 b) Explain C_4 pathway. 5
 c) Explain non-cyclic photo-phosphorylation. Write its significance. 7

Unit – II

4. a) Give an account of different enzyme complexes and elements of E.T.S. 4
 b) What is bud dormancy ? Explain its induction and removal. 4
 c) Describe the Krebs's cycle, with net yield of ATP. 7

OR

5. a) What is fermentation ? Explain any two types of fermentation. 3
 b) Explain the process of conversion of pyruvic acid into acetyl CoA. 5
 c) What is seed dormancy ? Explain the causes and methods to break seed dormancy. 7

Unit – III

6. a) Write a note on phases of growth and factors affecting growth. 4
 b) What is photoperiodism ? Explain the different types of plants based on the photoperiodism. 4
 c) Give an account of different types of Tropic Movements. 7

OR

7. a) Write a note on Autonomic Nastic Growth Movements. 3
 b) What is vernalization ? Explain its practical applications. 5
 c) Explain the role of Auxins in plant growth. 7

Unit – IV

8. a) Write a note on National Parks. Name any two National Parks of India and its importance. 4
 b) Give an account of mangrove vegetation. 4
 c) Explain the morphological and anatomical adaptations of hydrophytes with suitable examples. 7

OR

9. a) What is acid rain ? What are its effects ? 3
 b) Write a note on *RET* plants with suitable examples. 5
 c) What are xerophytes ? Explain their anatomical adaptations with suitable illustrations. 7